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COREOPSIS MARITIMA

SEASIDE COREOPSIS

RANCHO SANTA ANA BOTANIC GARDEN
of the
NATIVE PLANTS OF CALIFORNIA
Santa Ana Cañon, Orange County, California
Established 1927 in Memory of
JOHN W. BIXBY

Number 53 May 15, 1942

COREOPSIS MARITIMA
SEASIDE COREOPSIS

Compositae Sunflower Family

Glabrous, green perennial with slightly aromatic herbage, 1-2 ft. high and of equal spread; stems somewhat weak and brittle, ½-1 in. thick, usually hollow, arising from a slightly woody root crown. Leaves fern-like, alternate, fleshy, 6-10 in. long, 2 or 3 times pinnate, ultimate divisions flattened, ½-1 in. long and ⅛ in. wide. Flower heads solitary on 12-18 in. long, clean peduncles; unopened heads flattened at base, ½ in. across, slightly higher. Involucral bracts in 2 series; the 6 or 7 outer ones thick and fleshy, oblong, ½-¾ in. long, ¼ in. wide at base, obtuse, at first erect, then spreading and later reflexed; the inner bracts about 12, thin, yellowish-green, many-nerved, ovate, acute, about ¾ in. long, erect. Flowers of two sorts; ray flowers about 18, pistillate, fertile, with a clear lemon yellow ligule, 1½ in. long and ⅜ in. wide, 3-toothed at apex, style branches 2, exserted from tubular portion of corolla; disc flowers orange-yellow, several hundred per head, interspersed with chaffy bracts of the receptacle, corolla 5-parted, with an exserted, 2-parted style and anther column. Disc flowers open progressively from the outside toward the center of the receptacle and are all fertile except for a few at the center. Achenes mature within a couple of weeks after the flowers open, these alike for disc and ray flowers, are strongly flattened, about ¼ in. long, ⅛ in. wide, have a dark brown body and a lighter narrow marginal wing. In germination the achene is lifted above ground by the foliar, expanding, linear cotyledons, about 1 in. long; next leaves are pinnate.

The genus *Coreopsis* (name from two Greek words meaning bug and like, and is in reference to the achenes of some species) consists of about 75 species of wide distribution in America, tropical Africa and some of the islands of the Pacific. At least 12 species are native of the eastern United States, some of which are commonly planted in gardens. Eight species are recognized for California by H. K. Sharsmith (Madroño, vol. 4, pages 209-231, 1938), all of which are members of the subgenus *Leptosyne,* which at one time was regarded as a distinct genus.

Coreopsis maritima (meaning of the sea) was discovered at San Diego by Thomas Nuttall (1786-1859), famous botanist who collected in California about 1835. He described the plant as *Tuckermannia maritima* (after a friend named Tuckermann) in 1841, in the belief that it represented a new genus distinct from *Coreopsis* and other closely related groups. In 1868 Asa Gray transferred the plant to *Leptosyne.* In 1876 J. D. Hooker (English botanist, 1817-1911) described and figured the plant in Curtis Botanical Magazine, plate 6241, as *Coreopsis maritima.* The only close relative of *Coreopsis maritima* is *C. gigantea,* a curious plant of the Channel Islands and the coast of Los Angeles, Ventura and Santa Barbara Cos. The latter plant is shrublike with thick

pithy trunks 5-6 ft. high and produces numerous flowers in short leafy cymes.

Distribution of *Coreopsis maritima* is along the immediate coastal bluffs of San Diego Co., northern Baja California and on a few of the adjacent Mexican islands. Some books have listed this species as growing wild as far north as Los Angeles Co., but we have never found it north of San Diego Co., nor have we seen herbarium specimens verifying its range so far north. The species is not an aggressive one in its native habitat and is likely to become nearly extinct in California within a comparatively few years. Its large and attractive flowers invite picking and many of the areas in which it grows are being tremenduously altered by wartime activities by which almost all native vegetation is destroyed.

A characteristic spot where we have observed *Coreopsis maritima* is on the coastal bluffs just north of Soledad Canyon. These bluffs are largely composed of a semi-solidified sand held together by some clay. A few scattered trees of *Pinus Torreyana* dot the hillside, while *Rhus laurina, Artemisia californica* and *Eriogonum fasciculatum* form an open brushy growth. *Dichondra occidentalis* and numerous introduced grasses and weeds cover the ground. The plants of *Coreopsis maritima* are more or less inconspicuous except during their blooming period from March to May. We first noted the species at this spot in 1931 and have watched it since then, but it has never appeared to have been able to maintain more than a few dozen individuals in the area.

Our stock of *Coreopsis maritima* came from Oceanside in 1929, but the plants live only a few years so that the individuals now in the Garden are mainly 4th and 5th generation offspring. Propagation of Seaside Coreopsis or Sea-Dahlia as it is sometimes called is by seeds which germinate readily in loamy soil either in outside beds or in flats. The young seedlings are easily handled in containers and no difficulty is encountered in transplanting. Seeds planted in the early fall produce plants which will flower the following spring, but reach full size about the second year. Planting of seeds in the spring results in plants which grow quickly, but which are not likely to bloom the same season. In either case the plants are only short lived perennials which must be replaced after two or three seasons. However, where the ground is not disturbed around the plants a constant supply of volunteers will generally eliminate the necessity of deliberately propagating new ones. Best results are attained if the plants are given a slightly protected spot in a well drained, not too rich soil and allowed a rest period by withholding water during the summer. These will probably not be successful in the hot interior, but are valuable for gardens along the coast or at reasonable distances inland.

Our *Coreopsis maritima* should not be confused with the common perennial *Coreopsis* of gardens which has deep yellow flowers and herbage with a rather strong and somewhat disagreeable odor. Our plants lack this objectionable odor, have fine fern-like foliage and their large clear lemon yellow heads make excellent cut-flowers.

CARL B. WOLF

RANCHO SANTA ANA BOTANIC GARDEN

Dedication of Garden Foundation to the Board of Trustees for the Rancho Santa Ana Botanic Garden of the Native Plants of California:

"THE NATURE, OBJECT AND PURPOSE OF THE INSTITUTION HEREBY FOUNDED AND TO BE MAINTAINED HEREUNDER.

ITS NATURE: A botanic garden of the native plants of California, herbarium and botanical library, containing living and/or preserved specimens of trees, plants and flowers native to California, and literature relating thereto.

ITS OBJECT: The preservation and improvement of the property now transferred and such property as may hereafter be transferred to the Trustees for those who not only wish to enjoy, but to study, assembled in one accessible locality, native California plants; and for the advancement of science and education with reference to plant life indigenous to the State of California.

ITS PURPOSES: (a) An institution founded primarily for scientific research in the field of local botany.

(b) To preserve the native California flora, try to replenish the depleted supply of some of the rarest plants which are rapidly being exterminated, and bring together in a comparatively small area as complete a collection of the rich store of native California plants as can be grown in this southern section of the state, thereby promoting the general welfare of the people of the state by providing the means for encouraging and carrying on the above mentioned activities in said state and by doing such other things as may be necessary and desirable to carry out the objects hereof."

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